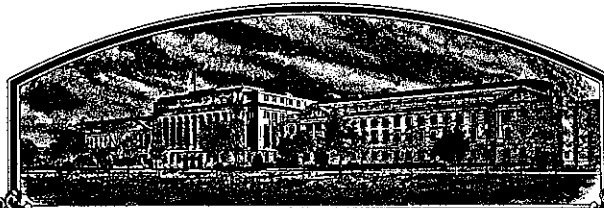


No.

8500158



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Co.

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (U.S.C. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'A1895'



In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington, D. C.
this 30th day of May in
the year of our Lord one thousand nine
hundred and eighty-six.

Attest:

Kenneth H. ...
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Richard E. Lyng
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPROVAL EXPIRES 4-30-85

FORM APPROVED: OMB NO. 0581-0055

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

| | | | | | |
|---|--|---|---|---|--|
| 1. NAME OF APPLICANT(S) Asgrow Seed Company | | 2. TEMPORARY DESIGNATION XP1695 | | 3. VARIETY NAME A1895 | |
| 4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 9620-190-25 Gull Road, Building 190 Kalamazoo, MI 49001 | | 5. PHONE (Include area code) (616) 385-6605 | | FOR OFFICIAL USE ONLY VPVO NUMBER 8500158 | |
| 6. GENUS AND SPECIES NAME Glycine Max | | 7. FAMILY NAME (Botanical) Leguminosae | | FILING DATE 5-29-85 TIME 11:00 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M. | |
| 8. KIND NAME Soybean | | 9. DATE OF DETERMINATION September 1979 | | FEES RECEIVED AMOUNT FOR FILING \$ 1,800 DATE 5-29-85 AMOUNT FOR CERTIFICATE \$ 200. ⁰⁰ DATE 4/3/86 | |
| 10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation | | | | | |
| 11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware | | | | | |
| 13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Mr. John A. Batcha (9620-190-25) Asgrow Seed Company Gull Road, Bldg. 190 Kalamazoo, MI 49001 | | | | | |
| PHONE (Include area code): (616) 385-6605 | | | | | |
| 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement. c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.) d. <input type="checkbox"/> Exhibit D, Additional Description of Variety. e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership. | | | | | |
| 15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input checked="" type="checkbox"/> No </div> | | | | | |
| 16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </div> | | | 17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified </div> | | |
| 18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <div style="display: flex; justify-content: flex-end;"> <input type="checkbox"/> Yes (If "Yes," give date) <input checked="" type="checkbox"/> No </div> | | | | | |
| 19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES? <div style="display: flex; justify-content: flex-end;"> <input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No </div> | | | | | |
| 20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties. | | | | | |
| SIGNATURE OF APPLICANT | | | | DATE April 26, 1985 | |
| SIGNATURE OF APPLICANT | | | | DATE | |

Asgrow Seed Company
PVP Application A1895 Soybean
April, 1985

EXHIBIT A

Origin and Breeding History of A1895

- 1976 Cross was made in July, 1976, at Ames, Iowa.
PARENTS: A2575*L73-827
- 1976-77 (Winter) F₁ generation grown at Delray Beach, Florida.
- 1977 F₂ generation grown at Ames, Iowa.
- 1977-78 (Winter) F₃ generation grown at Delray Beach, Florida.
- 1978 F₄ generation grown at Ames, Iowa. Two hundred plants were selected from the bulk population and threshed individually.
- 1979 Progeny row D76424-D79-36202 was selected for its uniformity and maturity. This row was harvested in bulk and seeds were checked and verified for uniform seed coat luster and hilum color.

It was in September, 1979, that D76424-D79-36202 was determined to be a stable and unique line.
- 1980 D76424-D79-36202 was entered in the Preliminary yield tests which were grown at two locations in Iowa. It produced uniform stands and was selected for its high yield and maturity.
- 1981 D76424-D79-36202 was entered in the Strain S100 yield tests which were grown at 6 locations in Iowa and Minnesota.

One hundred F₇ plants were pulled in October, 1981, at Ames, Iowa.

D76424-D79-36202 was assigned the designation, XP1695.
- 1982 XP1695 was entered in the Variety V100 yield tests which were grown at 8 locations in Iowa, Illinois and Minnesota. XP1695 was also entered in the Ontario, Canada, 3100 Heat Unit Variety Trials grown at three locations.

One hundred plant rows were grown at Ames, Iowa. The plant rows were harvested and checked and verified for dull seed coat luster and black hila. Twenty plant rows were bulked to form a breeder seed lot.

XP1695 was nominated for pilot production at Wallaceburg, Ontario.

1983

XP1695 was not yield tested in the United States, but was yield tested in Ontario, Canada, 3100 Heat Unit Variety Trials grown at two locations.

Breeder seed of XP1695 was grown on 1 acre at Wallaceburg, Ontario.

1984

XP1695 was entered in the Strain S101 yield tests grown at 8 locations in Iowa, Illinois and Minnesota. XP1695 was yield tested in the Ontario, Canada, 3100 Heat Unit Variety Trials grown at three locations.

Foundation seed of XP1695 was grown at Wallaceburg, Ontario.

XP1695 was nominated for release and full production and assigned the designation, A1895.

Trial evaluations since 1980 indicate that A1895 is uniform and stable. As with other soybean varieties, variants can occur for almost any characteristic during the course of repeated sexual reproduction.

Asgrow Seed Company
PVP Application A1895 Soybean
April, 1985

EXHIBIT B

Novelty Statement Concerning A1895 Soybean

To our knowledge the soybean varieties that most closely resemble A1895 are Hardin, Weber, A1937, A2858 and S1346. Characteristics which differentiate A1895, but are not necessarily restricted to, the following:

1. Flower Color:

| | |
|--------|----------|
| A1895 | = Purple |
| Hardin | = Purple |
| Weber | = White |
| A1937 | = Purple |
| A2858 | = Purple |
| S1346 | = Purple |

2. Hilum Color:

| | |
|--------|----------|
| A1895 | = Black |
| Hardin | = Yellow |
| Weber | = Black |
| A1937 | = Buff |
| A2858 | = Yellow |
| S1346 | = Yellow |

3. Stem Termination:

| | |
|--------|--------------------|
| A1895 | = Semi-determinate |
| Hardin | = Indeterminate |
| Weber | = Indeterminate |
| A1937 | = Indeterminate |
| A2858 | = Semi-determinate |
| S1346 | = Indeterminate |

4. Pubescence Color:

| | |
|--------|---------|
| A1895 | = Tawny |
| Hardin | = Gray |
| Weber | = Tawny |
| A1937 | = Tawny |
| A2858 | = Tawny |
| S1346 | = Gray |




A1895 is a late Group I maturity variety with a semi-determinate growth habit. A1895 has a good field tolerance rating to Phytophthora rot and higher yields in some areas than varieties of similar maturity.

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* L.)

| | | |
|--|---------------------------------|---|
| NAME OF APPLICANT(S) Asgrow Seed co. | TEMPORARY DESIGNATION XP1695 | VARIETY NAME A1895 |
| ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) 9620-190-25 Gull Road, Bldg. 190 Kalamazoo, MI 49001 | | FOR OFFICIAL USE ONLY PVPO NUMBER 8500158 |

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,).

1. SEED SHAPE:

| | | | |
|--------------------------------|---|---|---|
| <input type="text" value="3"/> |  |  |  |
| | 1 = Spherical (L/W, L/T, and T/W ratios = < 1.2) | | 2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2) |
| | 3 = Elongate (L/T ratio > 1.2; T/W = < 1.2) | | 4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2) |

2. SEED COAT COLOR: (Mature Seed)

| | | | | | |
|--------------------------------|------------|-----------|-----------|-----------|---------------------------|
| <input type="text" value="1"/> | 1 = Yellow | 2 = Green | 3 = Brown | 4 = Black | 5 = Other (Specify) _____ |
|--------------------------------|------------|-----------|-----------|-----------|---------------------------|

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

| | | |
|--------------------------------|-----------------------------------|----------------------------------|
| <input type="text" value="1"/> | 1 = Dull ('Corsoy 79'; 'Braxton') | 2 = Shiny ('Nebsoy'; 'Gasoy 17') |
|--------------------------------|-----------------------------------|----------------------------------|

4. SEED SIZE: (Mature Seed)

| | | |
|--------------------------------|--------------------------------|---------------------|
| <input type="text" value="1"/> | <input type="text" value="8"/> | Grams per 100 seeds |
|--------------------------------|--------------------------------|---------------------|

5. HILUM COLOR: (Mature Seed)

| | | | | | | | |
|--------------------------------|----------|------------|-----------|----------|---------------------|-----------|---------------------------|
| <input type="text" value="6"/> | 1 = Buff | 2 = Yellow | 3 = Brown | 4 = Gray | 5 = Imperfect Black | 6 = Black | 7 = Other (Specify) _____ |
|--------------------------------|----------|------------|-----------|----------|---------------------|-----------|---------------------------|

6. COTYLEDON COLOR: (Mature Seed)

| | | |
|--------------------------------|------------|-----------|
| <input type="text" value="1"/> | 1 = Yellow | 2 = Green |
|--------------------------------|------------|-----------|

7. SEED PROTEIN PEROXIDASE ACTIVITY:

| | | |
|----------------------|---------|----------|
| <input type="text"/> | 1 = Low | 2 = High |
|----------------------|---------|----------|

8. SEED PROTEIN ELECTROPHORETIC BAND:

| | | |
|----------------------|--------------------------------|--------------------------------|
| <input type="text"/> | 1 = Type A (SP ^{1a}) | 2 = Type B (SP ^{1b}) |
|----------------------|--------------------------------|--------------------------------|

9. HYPOCOTYL COLOR:

| | | |
|--------------------------------|--|--|
| <input type="text" value="4"/> | 1 = Green only ('Evans'; 'Davis') | 2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy') |
| | 3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71') | |
| | 4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A') | |

10. LEAFLET SHAPE:

| | | | | |
|--------------------------------|----------------|----------|-----------|---------------------------|
| <input type="text" value="3"/> | 1 = Lanceolate | 2 = Oval | 3 = Ovate | 4 = Other (Specify) _____ |
|--------------------------------|----------------|----------|-----------|---------------------------|

11. LEAFLET SIZE:

8500158

☒ 21 = Small ('Amsoy 71'; 'A5312')
3 = Large ('Crawford'; 'Tracy')

2 = Medium ('Corsoy 79'; 'Gasoy 17')

12. LEAF COLOR:

☒ 21 = Light Green ('Weber'; 'York')
3 = Dark Green ('Gnome'; 'Tracy')

2 = Medium Green ('Corsoy 79'; 'Braxton')

13. FLOWER COLOR:

☒ 2

1 = White 2 = Purple 3 = White with purple throat

14. POD COLOR:

☒ 2

1 = Tan 2 = Brown 3 = Black

15. PLANT PUBESCENCE COLOR:

☒ 2

1 = Gray 2 = Brown (Tawny)

16. PLANT TYPES:

☒ 21 = Slender ('Essex'; 'Amsoy 71')
3 = Bushy ('Gnome'; 'Govan')

2 = Intermediate ('Amcor'; 'Braxton')

17. PLANT HABIT:

☒ 21 = Determinate ('Gnome'; 'Braxton')
3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

2 = Semi-Determinate ('Will')

18. MATURITY GROUP:

☐ 0 ☒ 41 = 000 2 = 00 3 = 0 4 = I 5 = II 6 = III 7 = IV 8 = V
9 = VI 10 = VII 11 = VIII 12 = IX 13 = X

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

☐ 0Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)☐ 0Bacterial Blight (*Pseudomonas glycinea*)☐ 0Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

☐ 0Brown Spot (*Septoria glycines*)Frogeye Leaf Spot (*Cercospora sojina*)☐ 0

Race 1

☐

Race 2

☐

Race 3

☐

Race 4

☐

Race 5

☐

Other (Specify)

☐ 0Target Spot (*Corynespora cassicola*)☐ 0Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)☐ 0Powdery Mildew (*Microsphaera diffusa*)☐ 0Brown Stem Rot (*Cephalosporium gregatum*)☐ 0Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

FUNGAL DISEASES: (Continued)

☐ 0 Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)☐ 0 Purple Seed Stain (*Cercospora kikuchii*)☐ 0 Rhizoctonia Root Rot (*Rhizoctonia solani*)Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)☐ 2 Race 1 ☐ 2 Race 2 ☐ 1 Race 3 ☐ 1 Race 4 ☐ 1 Race 5 ☐ 1 Race 6 ☐ 1 Race 7☐ 1 Race 8 ☐ 1 Race 9 ☐ Other (Specify) _____

VIRAL DISEASES:

☐ 0 Bud Blight (Tobacco Ringspot Virus)☐ 0 Yellow Mosaic (Bean Yellow Mosaic Virus)☐ 0 Cowpea Mosaic (Cowpea Chlorotic Virus)☐ 0 Pod Mottle (Bean Pod Mottle Virus)☐ 0 Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

Soybean Cyst Nematode (*Heterodera glycines*)☐ 0 Race 1 ☐ 0 Race 2 ☐ 1 Race 3 ☐ 0 Race 4 ☐ Other (Specify) _____☐ 0 Lance Nematode (*Hoplolaimus Colombus*)☐ 0 Southern Root Knot Nematode (*Meloidogyne incognita*)☐ 0 Northern Root Knot Nematode (*Meloidogyne Hapla*)☐ 0 Peanut Root Knot Nematode (*Meloidogyne arenaria*)☐ 0 Reniform Nematode (*Rotylenchulus reniformis*)☐ OTHER DISEASE NOT ON FORM (Specify): _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

☐ 1 Iron Chlorosis on Calcareous Soil☐ Other (Specify) _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

☐ 0 Mexican Bean Beetle (*Epilachna varivestis*)☐ 0 Potato Leaf Hopper (*Empoasca fabae*)☐ Other (Specify) _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

| CHARACTER | NAME OF VARIETY | CHARACTER | NAME OF VARIETY |
|-------------|-----------------|-----------------------|-----------------|
| Plant Shape | A2858 | Seed Coat Luster | A1937 |
| Leaf Shape | A2858 | Seed Size | A1937 |
| Leaf Color | A2858 | Seed Shape | |
| Leaf Size | A2858 | Seedling Pigmentation | A1937 |
| | | | |

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

| VARIETY | NO. OF DAYS MATURITY | PLANT LODGING SCORE | CM PLANT HEIGHT | LEAFLET SIZE | | SEED CONTENT | | SEED SIZE G/100 SEEDS | NO. SEEDS/POD |
|-------------------------------------|----------------------|---------------------|-----------------|--------------|-----------|--------------|-------|-----------------------|---------------|
| | | | | CM Width | CM Length | % Protein | % Oil | | |
| Submitted A1895 | 126 | 2.0 | 83 | | | 42.1 | 19.1 | 17.6 | |
| S1346 Name of Similar Variety | 125 | 1.5 | 76 | | | 38.4 | 19.8 | 17.8 | |

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A₂ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

Asgrow Seed Company
PVP Application - Soybean A1895
April 26, 1985

8500158

EXHIBIT E

Statement of the Basis of Applicant's Ownership

A1895 was originated and developed by John A. Schillinger and Alan K. Walker, Asgrow Plant Breeders. By agreement between employee and Asgrow Seed Company, all rights to any invention, discovery, or development made by an employee are assigned to the Company. No rights to such invention, discovery, or development are retained by the employee.

mga
b:A1895.E